INDEX TO VOLUME LXXV.

July 1 to December 31, 1901.

A

Acetylene Lighting, The Future of..... 48
Acetylene Matters in France, by M. J. Sabatier..... 215
Acetylene Stoves and their Application, by A. J. Murdock.. 91
Adams, Alton D., Arc Lighting, Changes in..... 925
Adams, Alton D., Electrical Income and Outputs per Ton of Coal..... 851
Address of Edward G. Pratt, President of the American Gas Light Association..... 684
Address of John A. Britton, President of the Pacific Coast Gas Association..... 162
Address of the Chairman (George Livesey) of the Gas Section of the International Engineering Congress, held in Glasgow, Scotland, September 3, 4 and 5..... 489
Aldrich, W. S., Electricity in Manufacturing Work, Requirements of..... 170
*Allen Pneumatic Riveter with Power Grip, The..... 52
Allen, W. S., New Gas Works at Zurich, Switzerland, Results of a Year's Working of the..... 528
*Alternating Currents, Comparision of Methods of Secondary Distribution of, by G. C. Holberton..... 245
Alternating Current System of Distribution, Notes on the, by W. S. Barstow..... 968
Ambler, T. M., Gas Advertising..... 1008
American Gas Light Association, The Visit to Concord and Lexington by the..... 682
American Gas Light Association, Twenty-ninth Annual Meeting.....722, 762, 802, 842
American Methods in England, Introducing..... 135
Ammoniacal Liquors, Analysis of..... 967
Apprentices and Artisans at the University of Wisconsin, Summer School for..... 813
Arc Lighting, Changes in, by Alton D. Adams..... 925
*Arc Light Photometry, An Improved Apparatus for, by Prof. Matthews..... 607
Arc Lights, A Comparision of Inclined and Horizontal..... 772
Argument of S. S. Rubira, President of the Mobile (Ala.) Gas Light and Coke Company, before the City Council, Respecting the Proposition for an Opposition Gas Franchise..... 929
Arsenic in Coal and Coke..... 52
Ash and Coal Conveying Gear, by R. A. Chattock..... 127
Australian Electric Plant, Novel Condenser in an..... 973
*Automatic Coal Weighing and Recording Machine, Ingrey's..... 488
Alterations to Connections of an 80-Foot Diameter Water Gas Relief Holder and Tank, Experiences Encountered during the, by T. Randolph Murray..... 884

B

*Bachelay, P., Purifier Boxes, Expanded Metal for the Construction of..... 291
Barstow, W. S., Alternating Current System of Distribution, Notes on the..... 968
*Beck, A. C., Carburetted Water Gas Sets, Experience with. 402
Benefits from Membership in Engineering Societies, Cost of and..... 930
Bisulphide of Carbon, Cyanide of Potassium from..... 722
Bituminous Coal Industry, The Development of the, by Wm. G. Irwin..... 690
Bituminous Pavements, The Development of, by F. J. Warren..... 450
Bituminous Pavements, The Possibilities of the Use of Coal Tar in, by Fred. J. Warren..... 891
Blast Furnace Gas Engines in Austria..... 972
Blast Furnace Gases, The Profitable Utilization of Power from, by B. H. Thwaite..... 565
Boiler Fuel, Water Gas Tar as a..... 530
*Boiler, Penman's Water Tube..... 127
Brackenbury, C. E., Gas Engineering, Some Differences between British and Continental..... 42
Britton, John A., President Pacific Coast Gas Association, Address of..... 162
Bunsen, In Honor of..... 162
Burnett, Douglas, Illumination, The Physical Principles of, with Special References to Recent Methods..... 1010
Burning of Oil in Tanks, The..... 51
Burnt Out Incandescent Electric Lamps, A Method of Repairing..... 812
Business of a Gas Company? What is the, by F. D. Moses..... 647
*By-Product Coke Ovens in the United States, by Dr. F. Schniewind..... 165

C

California Oil Industry, The Present Outlook for the, by W. J. Young..... 888
*Carburetted Water Gas Sets, Experience with, by A. C. Beck..... 402
Card Directory, A, by E. H. Yorke..... 1047
Carnegie Technical School, The..... 95
Carnegie Technical University, The Expert Report on the.. 207
*Carpenter, Charles, C.E., Gas Manufacture, Application of the Unit System of, to its Purification..... 503
Carpenter, S., Purification of Gas, Further Notes on..... 129
Cast Iron Pipe and Specials, A Comparison of Standards for, by Walton Forstall..... 844
Cement, Portland, Regarding the Use of..... 932
Cement, Portland Testing..... 167
Central Station Men, Electric, Miscellaneous Notes of Interest to, by W. H. Wakeman.....122, 168, 253, 373, 651
*Charging Inclined Retorts, The Construction and Method of, by Gilbert Little..... 810
Chattock, R. A., Coal and Ash Conveying Gear..... 127
Clarion Coal in Vinton and Jackson Counties, O., Economic Value of the, by N. W. Lord..... 451
*Clowes, Prof. F., Table Photometer and Pentane 10-candle Lamp, The New..... 2
Coal and Coke, Arsenic in..... 52
*Coal and Coke in Gas Works, Mechanical Conveying of, by Henri Laurain..... 484
Coal and Iron, Mexican..... 1050
Coal, British Columbian..... 608
Coal Exports, Our..... 402
Coal Industry, The Development of the Bituminous, by Wm. G. Irwin..... 690
Coal, Russian..... 732
Coal Tar in Bituminous Pavements, The Possibilities of the Use of, by Fred. J. Warren..... 891
Coal, Utilization of Water Gas in the Destructive Distillation of, by Prof. V. B. Lewes..... 603
*Coal Weighing and Recording Machine, Ingrey's Automatic..... 488
Commercial Supremacy, American, by E. P. Watson..... 411
Compressive Strength of Masonry, The..... 927
Concord and Lexington, The Visit to, by the American Gas Light Association..... 682
Condenser, Novel, in an Australian Electric Plant..... 973
Connections of an 80-foot Diameter Water Gas Relief Holder and Tank, Experiences Encountered during the Alterations to, by T. Randolph Murray..... 884
Construction of Inclined Retort Carbonizing Plants, The, by Walter R. Herring..... 523
*Construction of Purifier Boxes, Expanded Metal for the, by P. Bachelay..... 291
Continental Gas Engineering, Some Differences between British and, by C. E. Brackenbury..... 42
Contractors and Emyloyees, The Duty of the Engineer to his, by D. Y. Schermerhorn..... 850
*Cooking at the Pan-American Exhibition, Gas for..... 251

CORRESPONDENCE—

Special English Correspondence, by Norton H. Humphrys,.....172, 331, 531, 691, 892, 1052
Course of Trade, The Puzzling..... 969
*Creeke, R. W. B., Scrubber, A New Type of..... 329
Cultural Value of Engineering Education, The..... 86
Current Engineering Literature, Advantages in Systematic Reading of..... 1013
Cyanide of Potassium from Bisulphide of Carbon..... 722

D

Design and Operation of a Lighting and Power System, The Influence of the Load Factor on the, by J. R. Robertson 169
Destructive Distillation of Coal, Utilization of Water Gas in the, by Prof. V. B. Lewes..... 603
Deterioration of Gas Pipes, An Example of the..... 812
Deterioration of Wrought Iron Pipe, A Peculiar Example Concerning the..... 166
Development of a Steam Plant of the Fifties, by A. H. Schlesinger..... 212
Difficulties with a Gasholder, Some, by J. G. Tooms..... 371
*Diluting Gases, The Economical Production of, by C. B. Tully..... 443
Directory, A Card, by E. H. Yorke..... 1047
Discoveries of Science, Sir William Preece on the..... 1050
Distribution, Alternating Current System of, Notes on the, by W. S. Barstow..... 968
*Distribution of Alternating Currents, Comparison of Methods of Secondary, by G. C. Holberton..... 245
Domestic Fuel Gas Consumption, Promotion of, by R. P. Valentine..... 247
Drafting..... 412
Drake, James W., Petroleum—Something of its History.... 210
*Drill, Ratchet, The Williams Universal..... 213

E

*Earnshaw, F. H., Retort House Practice, Further Notes on 643
Economy in Pumps..... 452
Edison Storage Battery at Buffalo, The..... 174

EDITORIALS—

Accident at Newark, N. J., The..... 5[illegible]
Address, President Britton's..... 161
Address, President Pratt's..... 681
American Association's Meeting this Week, The..... 602
American Gas Light Association, Special Editorial Correspondence..... 641
American Gas Light Association, Twenty-ninth Annual Meeting of the..... 482
Barrows, Colonel William E., Death of..... 202
Barrows, Colonel William E., Obituary Note..... 241
"Business of a Gas Company? What is the"..... 761
By-Product Coke Oven Question, Godfrey L. Cabot on the..... 1002
Charles Carpenter's Paper..... 562
Correspondence, Hysterical..... 401
Crockett, Joseph B., Resignation of..... 1041
Disturbing Sign, A..... 82
Electric Gas Lighting..... 842
Explosion in the Boston Subway, Findings in the Damage Suits Arising from the..... 482
"Field's Analysis"..... 42
"Fuel Value of Residuals, The"..... 922
Gasholders Abroad, American..... 961
Gas Supply of Toledo, A Queer Proceeding in the..... 281
Goodwin, William Wallace Death of..... 602
International Engineering Congress, Gas Section of the 482
Judson, J. Lee, Death of..... 602
Kansas Gas, Water and Electric Light Association, The Fourth Annual Meeting of the..... 802
Library and Information Fund of the Western Gas Association, Practical Progress in the Subscription to the..... 721
McIlhenny, James, Death of..... 361
Meters, Proportional..... 361
Mr. Littlehales Returns to the Charge..... 881
Neal, George B., Death of..... 82
Neal, George B., Obituary Note..... 201
New England Association of Gas Engineers, Proceedings of the..... 681
Oil Storage Tank Explosion, Newark, N. J., An Echo from the..... 1001
Pacific Coast Gas Association, Ninth Annual Meeting of the..... 42
Pacific Coast Gas Association—Special Editorial Correspondence..... 121
Personal..... 842
President, Death of the..... 482
Queer Argument, Mr. Martin's..... 321
Ramsdell's (George G.) New Field..... 1042
"Retort Ovens as Producers of Illuminating Gas"..... 841
Shapleigh, Waldron, Obituary Note..... 442
Slade, James, Obituary Note..... 2
Western Gas Association's Library and Information Fund, State of the Subscription to the..... 921
Western Gas Association's Library and Information Fund, The Subscription to the..... 801
Western Gas Association, Proposed Library and Information Fund..... 522
Western Gas Construction Company, Changes in the... 1001
Electrical Equipment, The Standardizing of..... 293
Electrical Income and Outputs per Ton of Coal, by Alton D. Adams..... 851
*Electrically Heated and Electrically Controlled Thermostat, An, by S. W. Young..... 87
Electric Central Station Men, Miscellaneous Notes of Interest to, by W. H. Wakeman.....122, 168, 253, 373, 651
Electricity, Destruction of Gas Pipes by Means of, by Dr. W. Leybold..... 526
Electricity in Cities of Moderate Size, Distribution of, by W. L. Robb..... 927
Electricity in Manufacturing Work, Requirements of, by W. S. Aldrich..... 170
Electric Lamps, Burnt Out Incandescent, A Method of Repairing..... 812
Electric Light and Power Distribution, Some Notes on, by Daniel W. Mead..... 370
Electric Meters, Some Fundamentals of, by C. D. Haskins. 890
Electric Plant, Novel Condenser in an Australian..... 973
Electric Power Distribution in England, Government Regulations Affecting..... 445
Electric Safety Lamps for Miners, Comparative Merits of the Flame and..... 612
Electric Transmission of Power from Niagara Falls, Notes on..... 491
Electrolysis Litigation, Report of the Master in Chancery on the Peoria..... 5
Electromotive Force Developed between Magnetized and Unmagnetized Iron..... 322
Energy, Utilizing the Sun's..... 492
*Engine, Gas, The Buffalo Tandem..... 442
Engineering Congress, International, held in Glasgow, Scotland, September 3, 4 and 5, Address of the Chairman (George Livesey) of the Gas Section of the..... 489
Engineering Education, The Cultural Value of..... 86
Engineering Literature, Advantages in Systematic Reading of Current..... 1013
Engineering Societies, Cost of and Benefits from Membership in..... 930
Engineer in Municipal Service, The Position of the..... 971
Engineer, The Duty of the, to his Contractors and Employees, by D. Y. Schermerhorn..... 850
*Engines, Gas, Steam and Air, a New Valve Gear for, by E. W. Naylor..... 1047
Engines, Highly Superheated Steam, by R. Lenke..... 649

INDEX TO VOLUME LXXV.

July 1 to December 31, 1901.

A

Acetylene Lighting, The Future of..... 48
Acetylene Matters in France, by M. J. Sabatier..... 215
Acetylene Stoves and their Application, by A. J. Murdock.. 91
Adams, Alton D., Arc Lighting, Changes in..... 925
Adams, Alton D., Electrical Income and Outputs per Ton of Coal..... 851
Address of Edward G. Pratt, President of the American Gas Light Association..... 684
Address of John A. Britton, President of the Pacific Coast Gas Association..... 162
Address of the Chairman (George Livesey) of the Gas Section of the International Engineering Congress, held in Glasgow, Scotland, September 3, 4 and 5..... 489
Aldrich, W. S., Electricity in Manufacturing Work, Requirements of..... 170
*Allen Pneumatic Riveter with Power Grip, The..... 52
Allen, W. S., New Gas Works at Zurich, Switzerland, Results of a Year's Working of the..... 528
*Alternating Currents, Comparision of Methods of Secondary Distribution of, by G. C. Holberton..... 245
Alternating Current System of Distribution, Notes on the, by W. S. Barstow..... 968
Ambler, T. M., Gas Advertising..... 1008
American Gas Light Association, The Visit to Concord and Lexington by the..... 682
American Gas Light Association, Twenty-ninth Annual Meeting.....722, 762, 802, 842
American Methods in England, Introducing..... 135
Ammoniacal Liquors, Analysis of..... 967
Apprentices and Artisans at the University of Wisconsin, Summer School for..... 813
Arc Lighting, Changes in, by Alton D. Adams..... 925
*Arc Light Photometry, An Improved Apparatus for, by Prof. Matthews..... 607
Arc Lights, A Comparision of Inclined and Horizontal..... 772
Argument of S. S. Rubira, President of the Mobile (Ala.) Gas Light and Coke Company, before the City Council, Respecting the Proposition for an Opposition Gas Franchise..... 929
Arsenic in Coal and Coke..... 52
Ash and Coal Conveying Gear, by R. A. Chattock..... 127
Australian Electric Plant, Novel Condenser in an..... 973
*Automatic Coal Weighing and Recording Machine, Ingrey's..... 488
Alterations to Connections of an 80-Foot Diameter Water Gas Relief Holder and Tank, Experiences Encountered during the, by T. Randolph Murray..... 884

B

*Bachelay, P., Purifier Boxes, Expanded Metal for the Construction of..... 291
Barstow, W. S., Alternating Current System of Distribution, Notes on the..... 968
*Beck, A. C., Carburetted Water Gas Sets, Experience with. 402
Benefits from Membership in Engineering Societies, Cost of and..... 930
Bisulphide of Carbon, Cyanide of Potassium from..... 722
Bituminous Coal Industry, The Development of the, by Wm. G. Irwin..... 690
Bituminous Pavements, The Development of, by F. J. Warren..... 450
Bituminous Pavements, The Possibilities of the Use of Coal Tar in, by Fred. J. Warren..... 891
Blast Furnace Gas Engines in Austria..... 972
Blast Furnace Gases, The Profitable Utilization of Power from, by B. H. Thwaite..... 565
Boiler Fuel, Water Gas Tar as a..... 530
*Boiler, Penman's Water Tube..... 127
Brackenbury, C. E., Gas Engineering, Some Differences between British and Continental..... 42
Britton, John A., President Pacific Coast Gas Association, Address of..... 162
Bunsen, In Honor of..... 162
Burnett, Douglas, Illumination, The Physical Principles of, with Special References to Recent Methods..... 1010
Burning of Oil in Tanks, The..... 51
Burnt Out Incandescent Electric Lamps, A Method of Repairing..... 812
Business of a Gas Company? What is the, by F. D. Moses..... 647
*By-Product Coke Ovens in the United States, by Dr. F. Schniewind..... 165

C

California Oil Industry, The Present Outlook for the, by W. J. Young..... 888
*Carburetted Water Gas Sets, Experience with, by A. C. Beck..... 402
Card Directory, A, by E. H. Yorke..... 1047
Carnegie Technical School, The..... 95
Carnegie Technical University, The Expert Report on the.. 207
*Carpenter, Charles, C.E., Gas Manufacture, Application of the Unit System of, to its Purification..... 503
Carpenter, S., Purification of Gas, Further Notes on..... 129
Cast Iron Pipe and Specials, A Comparison of Standards for, by Walton Forstall..... 844
Cement, Portland, Regarding the Use of..... 932
Cement, Portland Testing..... 167
Central Station Men, Electric, Miscellaneous Notes of Interest to, by W. H. Wakeman.....122, 168, 253, 373, 651
*Charging Inclined Retorts, The Construction and Method of, by Gilbert Little..... 810
Chattock, R. A., Coal and Ash Conveying Gear..... 127
Clarion Coal in Vinton and Jackson Counties, O., Economic Value of the, by N. W. Lord..... 451
*Clowes, Prof. F., Table Photometer and Pentane 10-candle Lamp, The New..... 2
Coal and Coke, Arsenic in..... 52
*Coal and Coke in Gas Works, Mechanical Conveying of, by Henri Laurain..... 484
Coal and Iron, Mexican..... 1050
Coal, British Columbian..... 608
Coal Exports, Our..... 402
Coal Industry, The Development of the Bituminous, by Wm. G. Irwin..... 690
Coal, Russian..... 732
Coal Tar in Bituminous Pavements, The Possibilities of the Use of, by Fred. J. Warren..... 891
Coal, Utilization of Water Gas in the Destructive Distillation of, by Prof. V. B. Lewes..... 603
*Coal Weighing and Recording Machine, Ingrey's Automatic..... 488
Commercial Supremacy, American, by E. P. Watson..... 411
Compressive Strength of Masonry, The..... 927
Concord and Lexington, The Visit to, by the American Gas Light Association..... 682
Condenser, Novel, in an Australian Electric Plant..... 973
Connections of an 80-foot Diameter Water Gas Relief Holder and Tank, Experiences Encountered during the Alterations to, by T. Randolph Murray..... 884
Construction of Inclined Retort Carbonizing Plants, The, by Walter R. Herring..... 523
*Construction of Purifier Boxes, Expanded Metal for the, by P. Bachelay..... 291
Continental Gas Engineering, Some Differences between British and, by C. E. Brackenbury..... 42
Contractors and Emyloyees, The Duty of the Engineer to his, by D. Y. Schermerhorn..... 850
*Cooking at the Pan-American Exhibition, Gas for..... 251

CORRESPONDENCE—

Special English Correspondence, by Norton H. Humphrys,.....172, 331, 531, 691, 892, 1052
Course of Trade, The Puzzling..... 969
*Creeke, R. W. B., Scrubber, A New Type of..... 329
Cultural Value of Engineering Education, The..... 86
Current Engineering Literature, Advantages in Systematic Reading of..... 1013
Cyanide of Potassium from Bisulphide of Carbon..... 722

D

Design and Operation of a Lighting and Power System, The Influence of the Load Factor on the, by J. R. Robertson 169
Destructive Distillation of Coal, Utilization of Water Gas in the, by Prof. V. B. Lewes..... 603
Deterioration of Gas Pipes, An Example of the..... 812
Deterioration of Wrought Iron Pipe, A Peculiar Example Concerning the..... 166
Development of a Steam Plant of the Fifties, by A. H. Schlesinger..... 212
Difficulties with a Gasholder, Some, by J. G. Tooms..... 371
*Diluting Gases, The Economical Production of, by C. B. Tully..... 443
Directory, A Card, by E. H. Yorke..... 1047
Discoveries of Science, Sir William Preece on the..... 1050
Distribution, Alternating Current System of, Notes on the, by W. S. Barstow..... 968
*Distribution of Alternating Currents, Comparison of Methods of Secondary, by G. C. Holberton..... 245
Domestic Fuel Gas Consumption, Promotion of, by R. P. Valentine..... 247
Drafting..... 412
Drake, James W., Petroleum—Something of its History.... 210
*Drill, Ratchet, The Williams Universal..... 213

E

*Earnshaw, F. H., Retort House Practice, Further Notes on 643
Economy in Pumps..... 452
Edison Storage Battery at Buffalo, The..... 174

EDITORIALS—

Accident at Newark, N. J., The..... 5[illegible]
Address, President Britton's..... 161
Address, President Pratt's..... 681
American Association's Meeting this Week, The..... 602
American Gas Light Association, Special Editorial Correspondence..... 641
American Gas Light Association, Twenty-ninth Annual Meeting of the..... 482
Barrows, Colonel William E., Death of..... 202
Barrows, Colonel William E., Obituary Note..... 241
"Business of a Gas Company? What is the"..... 761
By-Product Coke Oven Question, Godfrey L. Cabot on the..... 1002
Charles Carpenter's Paper..... 562
Correspondence, Hysterical..... 401
Crockett, Joseph B., Resignation of..... 1041
Disturbing Sign, A..... 82
Electric Gas Lighting..... 842
Explosion in the Boston Subway, Findings in the Damage Suits Arising from the..... 482
"Field's Analysis"..... 42
"Fuel Value of Residuals, The"..... 922
Gasholders Abroad, American..... 961
Gas Supply of Toledo, A Queer Proceeding in the..... 281
Goodwin, William Wallace Death of..... 602
International Engineering Congress, Gas Section of the 482
Judson, J. Lee, Death of..... 602
Kansas Gas, Water and Electric Light Association, The Fourth Annual Meeting of the..... 802
Library and Information Fund of the Western Gas Association, Practical Progress in the Subscription to the..... 721
McIlhenny, James, Death of..... 361
Meters, Proportional..... 361
Mr. Littlehales Returns to the Charge..... 881
Neal, George B., Death of..... 82
Neal, George B., Obituary Note..... 201
New England Association of Gas Engineers, Proceedings of the..... 681
Oil Storage Tank Explosion, Newark, N. J., An Echo from the..... 1001
Pacific Coast Gas Association, Ninth Annual Meeting of the..... 42
Pacific Coast Gas Association—Special Editorial Correspondence..... 121
Personal..... 842
President, Death of the..... 482
Queer Argument, Mr. Martin's..... 321
Ramsdell's (George G.) New Field..... 1042
"Retort Ovens as Producers of Illuminating Gas"..... 841
Shapleigh, Waldron, Obituary Note..... 442
Slade, James, Obituary Note..... 2
Western Gas Association's Library and Information Fund, State of the Subscription to the..... 921
Western Gas Association's Library and Information Fund, The Subscription to the..... 801
Western Gas Association, Proposed Library and Information Fund..... 522
Western Gas Construction Company, Changes in the... 1001
Electrical Equipment, The Standardizing of..... 293
Electrical Income and Outputs per Ton of Coal, by Alton D. Adams..... 851
*Electrically Heated and Electrically Controlled Thermostat, An, by S. W. Young..... 87
Electric Central Station Men, Miscellaneous Notes of Interest to, by W. H. Wakeman.....122, 168, 253, 373, 651
Electricity, Destruction of Gas Pipes by Means of, by Dr. W. Leybold..... 526
Electricity in Cities of Moderate Size, Distribution of, by W. L. Robb..... 927
Electricity in Manufacturing Work, Requirements of, by W. S. Aldrich..... 170
Electric Lamps, Burnt Out Incandescent, A Method of Repairing..... 812
Electric Light and Power Distribution, Some Notes on, by Daniel W. Mead..... 370
Electric Meters, Some Fundamentals of, by C. D. Haskins. 890
Electric Plant, Novel Condenser in an Australian..... 973
Electric Power Distribution in England, Government Regulations Affecting..... 445
Electric Safety Lamps for Miners, Comparative Merits of the Flame and..... 612
Electric Transmission of Power from Niagara Falls, Notes on..... 491
Electrolysis Litigation, Report of the Master in Chancery on the Peoria..... 5
Electromotive Force Developed between Magnetized and Unmagnetized Iron..... 322
Energy, Utilizing the Sun's..... 492
*Engine, Gas, The Buffalo Tandem..... 442
Engineering Congress, International, held in Glasgow, Scotland, September 3, 4 and 5, Address of the Chairman (George Livesey) of the Gas Section of the..... 489
Engineering Education, The Cultural Value of..... 86
Engineering Literature, Advantages in Systematic Reading of Current..... 1013
Engineering Societies, Cost of and Benefits from Membership in..... 930
Engineer in Municipal Service, The Position of the..... 971
Engineer, The Duty of the, to his Contractors and Employees, by D. Y. Schermerhorn..... 850
*Engines, Gas, Steam and Air, a New Valve Gear for, by E. W. Naylor..... 1047
Engines, Highly Superheated Steam, by R. Lenke..... 649

INDEX TO VOL. LXXV.

Engines, High Power Gas..... 932
Engines, in Austria, Blast Fuanace Gas..... 972
*Engine, The Maywood Gas and Gasoline..... 886
*Exhibition, Pan-American, Gas for Cooking at the..... 251
*Experiences, Edited by O. M. Gregory..... 362
Expert Report on the Carnegie Technical University, The. 207
Exposition, Suggestions at Pan-American..... 54
Extreme Potentials, Devices for Handling..... 90

F

Facts Connected with the History of the New Orleans (La.) Gas Light Company, Interesting..... 89
Fawcett, Waldon, Zinc Field, A New..... 133
Fire Hazards of Heating Systems..... 12
Forstall, Walton, Standards for Cast Iron Pipe and Specials, A Comparison of..... 844
Foster, E. H., Superheated Steam..... 9
Frankenheim, A., Foundry Foreman, How to Become a.... 611
Fuel for Locomotives, Texas Oil as..... 970
Fuel Gas Consumption, Promotion of Domestic, by R. P. Valentine..... 247
Fuel, Oil as a, by William Kennedy, C.E..... 208
Fuel Oil, by John W. Maxcy..... 11
*Fuel Value of Residuals, The, by Charles F. Prichard..... 807

C

Gas Advertising, by T. M. Ambler..... 1008
Gas and Fuel Purposes, Oils for, Practical Testing of, by L. P. Lowe..... 405
*Gas and Gasoline Engine, The Maywood..... 886
Gas Company? What is the Business of a, by F. D. Moses..... 647
*Gas, Differential Rates for, by Herr W. von Oechelhaeuser..... 203, 248
Gas Engineering, Some Differences between British and Continental, by C. E. Brackenbury..... 42
Gas Engines, Blast Furnace, in Austria..... 972
Gas Engines, High Power..... 932
*Gas Engine, The Buffalo Tandem..... 442
Gases, Blast Furnace, The Profitable Utilization of Power from, by B. H. Thwaite..... 565
*Gases, The Economical Production of Diluting, by C. B. Tully..... 443
Gases, Waste, in Sulphate Manufacture, The Treatment of 202
*Gas for Cooking at the Pan American Exhibition..... 251
Gasholder, Some Difficulties with a, by J. G. Tooms..... 371
*Gasholders, Removing Naphthaline Obstructions from the Inlet and Outlet Pipes of..... 410
*Gasholder Tanks, Intze's Improvements in..... 848
*Gasholder Tanks, Mayer's Improvements in..... 924
*Gas, Illuminating, Retort Ovens as Producers of, by T. Littlehales..... 767
*Gas Incandescent Lighting, High and Low Pressure, by Wm. Sugg..... 123
Gas Light Company, New Orleans, La., Interesting Facts Connected with the History of the..... 89
*Gas Manufacture, Application of the Unit System of, to its Purification, by Charles Carpenter, C. E..... 563
*Gas Mixtures, On the Determination of Hydrogen in, by Francis C. Phillips..... 125
Gas, Modern Methods of Distributing, by Norton H. Humphrys..... 408
*Gas Motive Power Plant, Wilson's..... 731
Gas, Natural, and Petroleum in Kansas..... 566
Gas, Natural, The Shrinkage of..... 88
*Gas, Oil, etc., Boring for Natural Inflammable, by "G. D. R."..... 202
Gas Pipes, An Example of the Deterioration of..... 812
Gas Pipes, Destruction of, by Means of Electricity, by Dr. W Leybold..... 526
*Gas Pressure by Means of Waste Heat, Self-Intensifying of, by C. Scott Snell..... 82
Gas, Purification of, Further Notes on, by S. Carpenter..... 129
Gas Section of the International Engineering Congress, held in Glasgow, Scotland, September 3, 4 and 5, Address of the Chairman (George Livesey) of the..... 489
Gas Securities, Market for..15, 55, 95, 135, 175, 215, 255, 295, 334, 375, 415, 455, 494, 534, 574, 614, 654, 694, 735, 775, 815, 855, 895, 935, 975, 1015, 1055
*Gas, Steam and Air Engines, A New Valve Gear for, by E. W. Naylor..... 1047
Gas, Water and Electric Light Association, Kansas, L. T. Palmer to the..... 1012
Gas Works at Zurich, Switzerland, Results of a Year's Working of the New, by W. S. Allen..... 528
*Gas Works, Mechanical Conveying of Coal and Coke in, by Henri Laurain..... 484
Gas Works, The Labor Question in, by George Livesey..... 164
*Gas Works, The Vienna Municipal.....882, 921, 962, 1002, 1042
Gift to the Stevens Institute of Technology, President Morton's..... 50
Graduates of Technical Schools, The Early Work of..... 8
*Grant Quick-Change Pipe Cutter, The..... 51
*Gregory, O. M., Experiences..... 362
Grimwood, J. B., Report of the International Congress of the Gas Industry (Paris, France, 1901) to the Pacific Coast Gas Association..... 242
*Ground Detector, A True, by T. W. Varley..... 130

H

Handling Extreme Potentials, Devices for..... 90
Haskins, C. D., Electric Meters, Some Fundamentals of.... 890
Heating Systems, Fire Hazards of..... 12
Herring, Walter R., Inclined Retort Carbonizing Plants, The Construction of..... 523
Herring, Walter R., Inclined Retort Settings, The Economical Advantages of..... 846
*High Potential Systems of Large Power, The Control of, by F. W. Rice, Jr..... 446
History of the New Orleans (La.) Gas Light Company, Interesting Facts Connected with the..... 89
*Holberton, G. C., Comparison of Methods of Secondary Distribution of Alternating Currents..... 245
Honor of Bunsen In..... 162
Horizontal and Inclined Arc Lights, A Comparison of..... 772
*Hubbell Riveting Machine, The..... 969
Humphrys, Norton H., Correspondence, Special English, 172, 331, 531, 691, 892, 1052
Humphrys, Norton H., Gas, Modern Methods of Distributing..... 408
Hunt, C. W., Manila Rope, Working Loads for..... 1009
Hydrogen and Methane, Oxidation of Nitrogen as a Source of Error in the Estimation of, by A. H. White..... 209
*Hydrogen in Gas Mixtures, On the Determination of, by Francis C. Phillips..... 125

I

*Illuminating Gas, Retort Ovens as Producers of, by T. Littlehales..... 767
Illumination, The Physical Principles of, with Special Reference to Recent Methods, by Douglass Burnett..... 1010
*Improved Apparatus for Arc Light Photometry, An, by Prof. Matthews..... 607
*Improvements in Gasholder Tanks, Mayer's..... 924
*Incandescent Gas Lighting, High and Low Pressure, by Wm. Sugg..... 123
Incandescent Electric Lamps, Burnt Out, A Method of Repairing..... 812
*Incandescent Lamp Economy, by Guy V. Williams..... 92
Inclined and Horizontal Arc Lights, A Comparison of..... 772
Inclined Retort Carbonizing Plants, The Construction of, by Walter R. Herring..... 523
Inclined Retort Settings, The Economical Advantages of, by Walter R. Herring..... 846
*Inclined Retorts, The Construction and Method of Charging, by Gilbert Little..... 810
Income and Outputs, Electrical, per Ton of Coal, by Alton D. Adams..... 851
Industrial Oxygen..... 563
Industrial Power Plant, Test of an..... 650
Industry, A Lost..... 642
*Inflammable Gas, Oil, etc., Boring for Natural, by "G. D. R."..... 202
*Ingrey's Automatic Coal Weighing and Recording Machine 488
*Inlet and Outlet Pipes of Gasholders, Removing Naphthaline Obstructions from the..... 410
Institute of Technology, President Morton's Gift to the Stevens..... 50
*Integrating Power Meter, An..... 125
Interesting Facts Connected with the History of the New Orleans (La.) Gas Light Company..... 89
International Engineering Congress, held in Glasgow, Scotland, September 3, 4 and 5, Address of the Chairman (George Livesey) of the Gas Section of the..... 489
International Congress of the Gas Industry (Paris, France, 1901) to the Pacific Coast Gas Association, Report of the, by J. B. Grimwood..... 242
Introducing American Methods in England..... 135
*Intze's Improvements in Gasholder Tanks..... 848
Inventor of the Thermometer, The..... 1054
Iron and Coal, Mexican..... 1050
Iron, Magnetized and Unmagnetized, Electromotive Force Developed between..... 322
Irwin, Wm. G., Development of the Bituminous Coal Industry, The..... 690
Items of Interest from Various Localities....13, 53, 93, 133, 173, 213, 253, 293, 333, 373, 413, 453, 493, 532, 572, 612, 652, 692, 733, 773, 813, 853, 893, 933, 973 1013, 1053

K

Kansas Gas, Water and Electric Light Association, L. T. Palmer to the..... 1012
Kennedy, William, C.E., Oil as a Fuel..... 208

L

Labor Question and Shop Ethics, Some Aspects of the, by F. P. Watson..... 568
Labor Unions and the Public Peace..... 132
*Lamp Economy, Incandescent, by Guy V. Williams..... 92
Lamps, Burnt Out Incandescent Electric, A Method of Repairing..... 812
Lamps, Electric Safety, for Miners, Comparative Merits of the Flame and..... 612
*Laurain, Henri, Conveying of Coal and Coke in Gas Works, Mechanical..... 484
Lenke, B., Highly Superheated Steam Engines..... 649
Lewes, Prof. V. B., Utilization of Water Gas in the Destructive Distillation of Coal..... 603
Leybold, Dr. W., Gas Pipes, Destruction of, by Means of Electricity..... 526
Light and Power Distribution, Electric, Some Notes on, by Daniel W. Mead..... 370
Light, by Professor Ivison Macadam..... 291
Lights, Arc, A Comparison of Inclined and Horizontal..... 772
Lighting, Arc, Changes in, by Alton D. Adams..... 925
*Lighting, High and Low Pressure Incandescent Gas, by Wm. Sugg..... 123
Literature, Current Engineering, Advantages of Systematic Reading of..... 1013
Litigation, Electrolysis, Report of the Master in Chancery on the Peoria..... 5
*Little, Gilbert, Construction and Method of Charging Inclined Retorts..... 810
*Littlehales, T., Retort Ovens as Producers of Illuminating Gas..... 767
Livesey, Geo., Labor Question in Gas Works, The..... 164
Load Factor, The Influence of the, on the Design and Operation of a Lighting and Power System, by J. R. Robertson..... 169
Locomotives, Texas Oil as Fuel for..... 970
Lord, N. W., Economic Value of the Clarion Coal in Vinton and Jackson Counties, O..... 451
Lost Industry, A..... 642
Lowe, L. P., Oils for Gas and Fuel Purposes, Practical Testing of..... 405

M

Macadam, Professor Ivison, Light..... 291
*Machine, Riveting, The Hubbel..... 969
Magnetized and Unmagnetized Iron, Electromotive Force Developed between..... 322
Manila Rope, Working Loads for, by C. W. Hunt..... 1009
Manufacturing Work, Requirements of Electricity in, by W. S. Aldrich..... 170
Market for Gas Securities.....15, 55, 95, 135, 175, 215, 255, 295, 334, 375, 415, 455, 494, 534, 574, 614, 654, 694, 735, 775, 815, 855, 895, 935, 975, 1015, 1055
Martin, John, Power Transmission, Practical..... 329
Masonry, The Compressive Strength of..... 927
*Matthews, Prof., Arc Light Photometry, An Improved Apparatus for..... 607
Maxcy, John W., Fuel Oil..... 11
*Mayer's Improvements in Gasholder Tanks..... 924
*Maywood Gas and Gasoline Engine, The..... 886
McKay, W. E., Tar and Water from Water Gas..... 724
Mead, Daniel W., Electric Light and Power Distribution, Some Notes, on..... 370
Membership in Engineering Societies, Cost of and Benefits from..... 930
*Metal, Expanded, for the Construction of Purifier Boxes, by P. Bachelay..... 291
*Meter, An Integrating Power..... 125
Meters, Electric, Some Fundamentals of, by C. D. Haskins. 890
Methane and Hydrogen, Oxidation of Nitrogen as a Source of Error in the Estimation of, by A. H. White..... 209
*Method of Charging Inclined Retorts, The Construction and, by Gilbert Little..... 810
Mexican Coal and Iron..... 1050
Miners, Electric Safety Lamps for, Comparative Merits of the Flame and..... 612
Moses, F. D., Business of a Gas Company? What is the... 647
*Municipal Gas Works, The Vienna.....882, 921, 962, 1002, 1042
Municipal Service, The Position of the Engineer in..... 971
Murdock, A. J., Acetylene Stoves and Their Application... 91
Murray, T. Randolph, Experiences Encountered During the Alterations to Connections of an 80-Foot Diameter Water Gas Relief Holder and Tank..... 884

N

*Naphthaline Obstructions, Removing, from the Inlet and Outlet Pipes of Gasholders..... 410
Natural Gas and Petroleum in Kansas..... 566
Natural Gas, The Shrinkage of..... 88
*Natural Inflammable Gas, Oil, etc., Boring for, by "G. D. R."..... 202
*Naylor, E. W., Gas, Steam and Air Engines, A New Valve Gear for..... 1047
*Nernst Lamp in America, Development of the, by A. J. Wurts.....528, 570, 609
New Gas Works at Zurich, Switzerland, Results of a Year's Working of the, by W. S. Allen..... 528
New Orleans (La.) Gas Light Company, Interesting Facts Connected with the History of the..... 89
New Power House at Niagara, The..... 651
Nitrogen, Oxidation of, as a Source of Error in the Estimation of Hydrogen and Methane, by A. H. White..... 209
Notices, Official—
American Gas Light Association.....441, 481, 521, 561, 601
New England Association of Gas Engineers.....721, 761, 801, 841, 881, 921, 961, 1001, 1041
Ohio Gas Light Association..... 1041
Pacific Coast Gas Association.....1, 41, 81
*Novelty Pipe Coupling, The..... 9

O

*Oechelhaeuser, Herr W. von, Differential Rates for Gas..203, 248
Oil as a Fuel, by William Kennedy, C.E..... 208

INDEX TO VOL. LXXV.

Oil Beds, Submarine 453
Oil Country, Schemes Worked in Western, by "G. D. R.". 251
Oil Engine Trials at Cardiff 46
Oil Fuel, by John W. Maxcy 11
*Oil, Gas, etc., Boring for Natural Inflammable, by "G. D. R." 202
Oil in Tanks, The Burning of 51
Oils for Gas and Fuel Purposes, Practical Testing of, by L. P. Lowe 405
Oil, Texas, as Fuel for Locomotives 970
*Oil Well Boring, Mechanics of 483
Opposition Gas Franchise, Argument of S. S. Rubira, President of the Mobile (Ala.) Gas Light and Coke Company, before the City Council, Respecting the Proposition for an 929
*Oster Pipe Threading Machine, The 812
Oxidation of Nitrogen as a Source of Error in the Estimation of Hydrogen and Methane, by A. H. White 203
Oxygen, Industrial 563

P

Pacific Coast Gas Association, Ninth Annual Meeting 282, 322, 362, 402
Palmer, L. T., to the Kansas Gas, Water and Electric Light Association 1012
*Pan-American Exhibition, Gas for Cooking at the 251
Pan-American Exposition, Suggestions at 54
Pavements, Bituminous, The Development of, by F. J. Warren 450
Pavements, Bituminous, The Possibilities of the Use of Coal Tar in, by Fred J. Warren 891
*Penman's Water Tube Boiler 127
*Pentane 10-Candle Lamp, The New Table Photometer and, by Prof. F. Clowes 2
Peoria Electrolysis Litigation, Report of the Master in Chancery on the 5
Petroleum and Natural Gas in Kansas 566
Petroleum—Something of its History, by James W. Drake. 210
*Phillips, Francis C., Determination of Hydrogen in Gas Mixtures, On the 125
*Photometry, An Improved Apparatus for Arc Light, by Prof. Matthews 607
Physical Principles of Illumination, with Special Reference to Recent Methods, by Douglas Burnett 1010
Pipe and Specials, A Comparison of Standards for Cast Iron, by Walton Forstall 844
*Pipe Coupling, The Novelty 9
*Pipe Cutter, The Grant Quick Change 51
Pipes, Gas, An Example of the Deterioration of 812
*Pipe Threading Machine, The Oster 812
Pipe, Wrought Iron, A Peculiar Example Concerning the Deterioration of 166
Plumbers, Everyday Dimensions for 410
*Pneumatic Riveter with Power Grip, The Allen 52
Portland Cement, Regarding the Use of 932
Portland Cement Testing 167
Potentials Extreme, Devices for Handling 90
Power and Light Distribution, Electric, Some Notes on, by Daniel W. Mead 370
Power Distribution, Electric, in England, Government Regulations Affecting 445
Power from Blast Furnace Gases, The Profitable Utilization of, by B. H. Thwaite 565
Power from Niagara Falls, Notes on Electric Transmission of 491
Power House at Niagara, The New 651
*Power Meter, An Integrating 125
Power Plant, Test of an Industrial 650
Power Transmission, Practical, by John Martin 329
Pratt, Edward G., President of the American Gas Light Association, Address of 684
Preece, Sir William, on the Discoveries of Science 1050
President Morton's Gift to the Stevens Institute of Technology 50
*Prichard, Charles F., Fuel Value of Residuals, The 807
*Producers of Illuminating Gas, Retort Ovens as, by T. Littlehales 767
Public Peace, Labor Unions and the 132
Pumps, Economy in 452
*Purification, Application of the Unit System of Gas Manufacture to its, by Charles Carpenter, C.E. 563
Purification of Gas, Further Notes on, by S. Carpenter 129
*Purifier Boxes, Expanded Metal for the Construction of, by P. Bachelay 291

Q

*Quick-Change Pipe Cutter, The Grant 51

R

*Ratchet Drill, The Williams Universal 213
*Rates for Gas, Differential, by Herr W. Von Oechelhaeuser 203, 248
Reading of Current Engineering Literature, Advantages of Systematic 1013
Recommendation, The Value of a 772
Relief Holder and Tank, Experiences Encountered during the Alterations to Connections of an 80-Foot Diameter Water Gas, by T. Randolph Murray 884
Repairing Burnt Out Incandescent Electric Lamps, A Method of 812
*Residuals, The Fuel Value of, by Charles F. Prichard 807
*Retort House Practice, Further Notes on, by E. H. Earnshaw 643
*Retort House Wrinkle, A 88
Retort Settings, Inclined, The Economical Advantages of, by Walter R. Herring 846
*Retorts, Inclined, The Construction and Method of Charging, by Gilbert Little 810
*Rice, E. W., Jr., Control of High Potential Systems of Large Power, The 446
*Riveter with Power Grip, The Allen Pneumatic 52
*Riveting Machine, The Hubbell 969
Robb, W. L., Distribution of Electricity in Cities of Moderate Size 927
Robertson, J. R., Load Factor, The Influence of the, on the Design and Operation of a Lighting and Power System. 169
Rope, Manila, Working Loads for, by C. W. Hunt 1009
Rubira, S. S., Argument of, President of the Mobile (Ala.) Gas Light and Coke Company, before the City Council, Respecting the Proposition for an Opposition Gas Franchise 929
Russian Coal 732

S

Sabatier, M. J., Acetylene Matters in France 215
Safety Lamps for Miners, Electric, Comparative Merits of the Flame and 612
Schermerhorn, D. Y., Duty of the Engineer to his Contractors and Employees 850
Schlesinger, A. H., Steam Plant of the Fifties, Development of a 212
*Schniewind, Dr. F. By-Product Coke Ovens in the United States 165
Science, Sir William Preece on the Discoveries of 1050
*Scott-Snell, C., Self-Intensifying of Gas Pressure by Means of Waste Heat 82
*Scrubber, a New Type of, by R. W. B. Creeke 329
*Secondary Distribution of Alternating Currents, Comparison of Methods of, by G. C. Holberton 245
Securities, Gas, Market for....15, 55, 95, 135, 175, 215, 255, 295, 334, 375, 415, 455, 494, 534, 574, 614, 654, 694, 735, 775, 815, 855, 895, 935, 975, 1015, 1055
Shop Ethics, Some Aspects of the Labor Question and, by E. P. Watson 568
Shrinkage of Natural Gas, The 88
Standardizing of Electrical Equipment, The 293
Standards for Cast Iron Pipe and Specials, A Comparison of, by Walton Forstall 844
Steam Engines, Highly Superheated, by R. Lenke 649
Steam Pipe Coverings, Competitive Tests of 929
Steel Concrete Construction, Features of 567
Stevens Institute of Technology, President Morton's Gift to the 50
Storage Battery at Buffalo, The Edison 174
Stoves, Acetelyene, and their Application, by A. J. Murdock. 91
Strength of Masonry, The Compressive 927
Submarine Oil Beds 453
*Sugg, Wm., High and Low Pressure Gas Incandescent Lighting 123
Sulphate Manufacture, The Treatment of Waste Gases in.. 202
Sun's Energy, Utilizing the 492
Superheated Steam, by E. H. Foster 9
Supremacy, American Commercial, by E. P. Watson 411

T

*Table Photometer and Pentane 10-Candle Lamp, The New, by Prof. F. Clowes 2
*Tandem Gas Engine, The Buffalo 442
*Tanks, Gasholder, Intze's Improvements in 848
*Tanks, Gasholder, Mayer's Improvements in 924
Tanks, The Burning of Oil in 51
Tar and Water from Water Gas, by W. E. McKay 724
Technical Schools, The Early Work of Graduates of 8
Technical School, The Carnegie 95
Technical University, The Expert Report on the Carnegie.. 207
Technogoly, President Morton's Gift to the Stevens Institute of 50
Testing Portland Cement 167
Tests of Steam Pipe Coverings, Competitive 929
Thermometer, The Inventor of the 1054
*Thermostat, An Electrically Heated and Electrically Controlled, by S. W. Young 87
Thwaite, B. H., Power from Blast Furnace Gases, The Profitable Utilization of 565
Tooms, J. G., Gasholder, Some Difficulties with a 371
Trade Situation, The General 13
Trade, The Puzzling Course of 969
Transmission of Power from Niagara Falls, Electric, Notes on 491
Transmission, Practical Power, by John Martin 329
Treatment of Waste Gases in Sulphate Manufacture, The.. 206
*Tube Expander, A Good 449
*Tully, C. B., Economical Production of Diluting Gases, The 443

U

Unions, Labor, and the Public Peace 132
*Universal Ratchet Drill, The Williams 213
University of Wisconsin, Summer School for Apprentices and Artisans at the 813
University, Technical, The Expert Report on the Carnegie. 207
Unmagnetized and Magnetized Iron, Electromotive Force Developed between 822
Useful Works Recipes, Some 15
Use of Portland Cement, Regarding the 932

V

Valentine, R. P., Fuel Gas Consumption, Promotion of Domestic 247
Value of a Recommendation, The 772
*Valve Gear for Gas, Steam and Air Engines, A New, by E. W. Naylor 1047
Value of Engineering Education, The Cultural 86
*Varley, T. W., Ground Detector, A True 130
*Vienna Municipal Gas Works, The 882, 921, 962, 1002, 1042

W

Wakeman, W. H., Electric Central Station Men, Miscellaneous Notes of Interest to 122, 168, 253, 373, 651
Warren, F. J., Bituminous Pavements, The Development of 450
Warren, F. J., Coal Tar in Bituminous Pavements, The Possibilities of the Use of 891
Waste Gases in Sulphate Manufacture, The Treatment of . 202
*Waste Heat, Self-Intensifying of Gas Pressure by Means of, by C. Scott-Snell 82
Water Gas Relief Holder and Tank, Experiences Encountered during the Alterations to Connections of an 80-Foot Diameter, by T. Randolph Murray 884
*Water Gas Sets, Carburetted, Experience with, by A. C. Beck 402
Water Gas Tar and Water from, by W. E. McKay 724
Water Gas Tar as a Boiler Fuel 530
Water Gas, Utilization of, in the Destructive Distillation of Coal, by Prof. V. B. Lewes 603
Water Pipe Laying at Pittsburg, Difficult 410
*Water Tube Boiler, Penman's 127
Watson, E. P., American Commercial Supremacy 411
Watson, E. P., Labor Question and Shop Ethics, Some Aspects of the 568
*Weighing and Recording Machine, Coal, Ingrey's Automatic 488
*Well Boring, Oil, Mechanics of 483
Welsbach, Dr. Carl Auer von, Interesting Reminiscences Recounted by, Over the Development of the Gas Lamp that Bears his Name 689
Western Oil Country, Schemes Worked in, by "G. D. R.". 251
White, A. H., Oxidation of Nitrogen as a Source of Error in the Estimation of Hydrogen and Methane 209
*Williams, Guy V., Incandescent Lamp Economy 92
*Williams Universal Ratchet Drill, The 213
*Wilson's Gas Motive Power Plant 731
Working Day in America, Length of the 362
Works Recipes, Some Useful 15
*Wrinkle, A Retort House 88
Wrought Iron Pipe, A Peculiar Example Concerning the Deterioration of 166
*Wurts, A. J., Nernst Lamp in America, Development of the 528, 570, 609

Y

Yorke, E. H., Card Directory, A 1047
*Young, S. W., Electrically Heated and Electrically Controlled Thermostat, An 87
Young, W. J., California Oil Industry, The Present Outlook for the 888

Z

Zinc Field, A New, by Waldon Fawcett 133

SPECIAL INDEX OF REPORTS OF PROCEEDINGS OF ASSOCIATIONS.

American Gas Light Association—Twenty-Ninth Annual Meeting.

Address, Inaugural 684
Advertising, Report of Committee on 766
Beal Medal, Appointment of Committee to Award 803
Council, Report of 723
Doty, Paul, A Telegram from 846
Gas Educational Fund, Trustees, Report of 723
Membership, Applications for and Changes in 723
Members, New, Election of 723
Next Place of Meeting, Appointment of Committee on 764
Next Place of Meeting, Report of Committee on 805
Officers, Election of 762
Officers, Report of Committee on Nomination of 762
President's Address, Committee on 762
President's Address, Report of Committee on 805
Question Box 806
Research, Report of Committee on 764
Resolutions, Committee on Final 803
Resolutions, Report of Committe on Final 846
Roll Call 722
Secretary, Report of 723
Treasurer, Report of 723
Uniform System of Accounting, Report of Committee on... 762

PAPERS READ—

Bagging Live Gas Maines, by P. H. Gibbons 805
Business of a Gas Company? What is the, by F. D. Moses 647
*Residuals, The Fuel Value of, by Charles F. Prichard. 807
*Retort House Practice, Further Notes on, by E. H. Earnshaw 643
*Retort Ovens as Producers of Illuminating Gas, by T. Littlehales 767
Standards for Cast Iron Pipe and Specials, A Comparison of, by Walton Forstall 844
Tar and Water from Water Gas, by Wm. E. McKay 724

Pacific Coast Gas Association - Ninth Annual Meeting.

Address, Inaugural 162
Business, Routine 407
Condolence, Message of, to Mr. A. C. Humphreys 325
Directors, Report from the Board of 282
Honorary Membership, Elected to 326
Library, Report Prepared by the Committee on 325
Lowe, Mr. L. P., Communication from 283
McDonald, Mr. William, is called upon for "Counsel" .. 283
Membership, Applications for 282
Members, New, Election of 283
Obituaries, Report of Committee on 324
Officers, Election of 326
Officers, Report of Committee on Nomination of 326
President's Address, Report of Committee on 324
Roll Call 282
Secretary and Treasurer, Report of 282
Special Committees, Appointment of 283
Telegram, A 283, 327
Thanks, Votes of 408

PAPERS READ:

*Alternating Currents, Comparison of Methods of Secondary Distribution of, by George C. Holberton 245
*Carburetted Water Gas Sets, Experience with, by A. C. Beck 402
*Experiences, Edited by O. M. Gregory 362
Fuel Gas Consumption, Promotion of Domestic, by R. P. Valentine 247
International Congress of the Gas Industry, Held in Paris, France, September, 1900, Report on the, by J. B. Grimwood 242
Oils for Gas and Fuel Purposes, Practical Testing of, by L. P. Lowe 405
Power Transmission, Practical, by John Martin 322

*WRINKLE DEPARTMENT—

Crude Oil for Bench Fuel, Device for Using 367
Crude Oil for Gas Enrichment, Device for Using 368
Elbow Joint, A Universal 370
Gas Analysis, Pipette for 369
Loose Leaf Account Sheet for Gas and Electric Works, Showing Every Detail 369
Oil or Tar Burner 369
Purifier Trays, Cheap 368
Valve Automatically Closed 369